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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,321	06/28/2004	Shigeyuki Ikeda	1295.43993X00	9110
20457	7590	09/28/2005		
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER SANEI, MONA M	
			ART UNIT	PAPER NUMBER
			2882	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,321	<b>Applicant(s)</b> IKEDA, SHIGEYUKI	
	<b>Examiner</b> Mona M. Sanei	<b>Art Unit</b> 2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5 and 9 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1 and 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>09142004, 06282004</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This application is in condition for allowance except for the following formal matters:

#### ***Priority***

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on December 28<sup>th</sup> 2001. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the International application forming the basis for this National application was filed more than twelve months thereafter.

#### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns;" "The disclosure defined by this invention," "The disclosure describes," etc.

The first sentence of this abstract utilizes "means" terminology. Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. A more descriptive title would mention the multiple modes.

#### ***Claim Objections***

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4. Claim 1 is objected to because of the following informalities:

Line 2 states "... for generating X-ray according to ..." The sentence will be grammatically correct if changed to "... for generating *an* X-ray according to ..." or "... for generating X-rays according to ..."

Line 8 states "... mode to thereby outputs image data ..." which is grammatically incorrect because the term "outputs" should not be in the plural form.

5. Claim 7 is objected to because of the following informality:

Line 2 states "... an instruction to update *the* offset data ..." which creates a lack of antecedent basis problem. Delete "the" of the previous statement to overcome this minor draft error.

6. Claim 6 is objected to because of the following informality:

Line 2 states "... by subtracting *the* offset data from ..." which creates a lack of antecedent basis problem. Delete "the" of the previous statement to overcome this minor draft error.

7. Claim 8 is objected to because of the following informality:

Line 2 states "... modes are different two of an entire region ..." The sentence will be grammatically correct if changed to "... modes are *a* different two of an entire region ..."

Appropriate correction is required

***Allowable Subject Matter***

Claims 1-9 contain allowable subject matter.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or render obvious an x-ray diagnosis apparatus comprising a first mode offset data calculation means for, when a first mode of a plurality of image acquisition modes is selected, calculating new offset data in the

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first mode based on offset image data outputted from an x-ray detector in a state that the x-ray is not incident on the x-ray detector and first mode offset data stored in the storage means; and a second mode offset data calculation means for calculating new offset data in a second mode based on second mode offset data of the plurality of image acquisition modes stored in the storage means and the new offset data in the first mode in combination with all the limitations in each respective claim.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Colbeth et al. (5,970,115) teaches a multiple mode digital x-ray imaging system. Colbeth et al. fails to teach that the second mode of the multiple mode image acquisition has a new offset data in the first mode.

Petrack et al. (5,920,070) teaches a solid state area x-ray detector with adjustable bias. Petrack et al. teaches a decaying ghost image of the first mode of the plurality of acquisition modes and the consequent storage and subtraction of the ghost image from the second mode. Petrack et al. fails to teach that each mode of the plurality of image acquisition modes has an offset data calculation means for the mode itself.

Granfors et al. (5,452,338) teaches a solid state x-ray detector with real time offset correction. Granfors et al. fails to teach a plurality of acquisition modes.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mona M. Sanei whose telephone number is (571) 272-8657. The examiner can normally be reached from Monday through Friday from 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MMS



EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER

